FROM \$10 A WEEK TO A BUSINESS IN MILLIONS

Eldredge Reeve Johnson Took Squeak Out of a Talking Machine and Created a Great Industry

imperfectly reproduced and it was screamingly funny to hear the wheezing and scratching that accompanied it.

Everybody said it was an amusing and astonishing toy. To young Eldredge Reeve Johnson, who had chanced to secure the job in a phonograph shop, it was not a toy. He realized its possibilities and made motors for his employers and improved on them. The firm said casually that his idea was good and they would have taken it up had the business not come to an untimely end just then.

For a period there was no more experimenting with the talking machine for Johnson, but the idea stuck in his head. Perhaps it was more like a dream than an idea, for the young mechanic seemed able to picture a good deal more than

financial success in it.

When the firm failed Johnson emigrated to the West, where he had all kinds of adventures, but failed to make money. Finally when he was about down and out he came to the conclusion that he would rather starve among his own folk than off in a new country. So he sent his tools back by freight and hought his own ticket. When he reached Philadelphia the freight bill was unpaid and he had half a dollar in his pocket.

man can trust in such an emergency. The friend gazed upon Johnson and then remarked:
"Well, Johnson, you are sure up against

it. What do you say to our going into business?"

"We're both broke, so it seems just the thing. We can't lose and I think we are sure to make," was the reply. With difficulty the young men scraped

sufficient money together to take a little shop seventeen feet square in Camden, N. J., being too poor to aspire to business in the Quaker City.
From this little shop to an establish-

ment covering fifteen acres of floor space, from an income of \$10 a week-when hat does a business of \$30,000,000 a year something of a record for fourteen years on a start of a shoestring. And you are the man who made it is Johnson, inventor partner. and owner of the Victor talking machine.

ACK in 1898 fate took him to a When Johnson and his partner began phonograph shop. The invention was new then and Johnson was the expert and his friend it was the joy of visitors at Coney the financier. Ten dollars a week was Island and similar resorts to listen in the phonograph rooms to the squeaking out of "Hail, Columbia" or "When the Roses took it. As will be seen financially the Bloom Again, Sweet Genevieve." It firm was not a strong one, but the partseemed wonderful to have the music even ners believed in each other and their motto was "Sink or swim together."

Johnson invented a wheat cleaning machine as a first effort and his partner attempted to sell it. He was only fairly successful, but if the firm had any idea of how very good the machine was they might have stuck to it until they won

Oil burners came next on the list of Johnson's inventions, and the partners came near making a fortune out of them. Customers seemed to think the burners the greatest invention of the age for economy. For three months the firm's troubles seemed over. Then complaints began to come in from customers. They said the burner got out of repair. The promoters discovered that it was the truth. It was not good as a permanency For a short time it worked well, then went out of business. Finally a customer met with an accident with one of the burners and the trouble he made for the firm in consequence discouraged them from further sales of oil burners. Back in Johnson's head all this time

was simmering the talking machine idea. When they gave up the oil burners he talked the matter over with his partner, and as usual his partner agreed with him. He was at least of the opinion that Without money and tools he turned to Johnson's machine would be better than a triend, one of the kind fortunately that any on the market. But when Johnson began to describe the possibilities of the nachine, to explain that it would bring the voices of great singers within the hearing of the poorest listeners and that it would enable every great voice to be heard a hundred years hence Johnson's partner shook his head and told the young inventor he was at least a trifle visionary.

"No, Eldredge," he remarked, "I know you will make a good machine, but you will never in the world get the squeak out of it. As curious toys people may buy them because they are curious. If we can make and sell 600 or so I think it would be a good scheme to do it."

Thereafter for nearly twenty-four hours of the day the inventor worked on his phothere happened to be \$10 available for nograph. One day he went to his partner the firm—to the control of a company excitedly and said:

This time I've got it sure." "When you say you have got a thing usually right," remarked, the

So together they turned to the machine



which had been so often changed, so persistently and baffingly inaccurate. Johnson put on a record while his partner an almost squeakless sound. Johnson day Mr. Johnson remarked: "I remember knows the dog. There is an interesting looked at his partner and the financier of that we had no place for the singers to story back of the way in which the dog record in except a loft that you got to came into the Victor family.

"I take back all I said about the squeak," with a ladder. I would scurry around and Originally the drawing was offered by the firm returned the glance.

Fortunately at this time the firm had our efforts.

what the partner played. Then they re- day and work for us. marked:

esent the graphophone company and the Victor people have controlled Mr. Johnson's invention. This is briefly the story of how a man

started a new industry and sent his prod-ucts all over the globe. His invention has recorded the great voices of the day and the songs and folk tales of fifty-nine different languages and dialects.

Fourteen years ago not a singer of repu- trade mark, the little dog listening to his tation would touch the talking machine master's voice with his head to one side business. Then Johnson and his partner and wondering why under the sun the bewaited. Then Johnson turned a little had very little to offer singers in the way loved presence delays to come out of crank and from the machine there came of remuneration. Referring to this one the horn. The world over everybody

emarked his partner.

The two men knew what the machine a dollar or two in real money and then The manager looked at it and remarked meant. It was not difficult for them to I'd push him up the ladder and try to get picture luxury, pleasure, everything in a record. At times the voices would life worth while. Johnson had arrived. record, at others only failure crowned some money, which had come in from a job of repairing ballot boxes. One though when I think of those early days as I

sand dollars was in the treasury, less what watch Melba, Farrar, Tetrazzini, Caruso Johnson's partner had spent to buy a gun.

He loved to shoot and Johnson had inlaboratory to-day. At times when I sisted when this money was paid that his partner should indulge himself with a gun, as he did believe a most abroad at the second state of the sec time, and \$10 a week had been a pretty natured, stout creature who had come large percentage of the net receipts of the in the rain without an umbrella to sing firm for the inventor to withdraw. But for a dollar or so. In her hat she had a the gun was not a very expensive one and long feather and it hung over her ear. there was considerable money available. dripping water on the floor of the loft.

Johnson's partner sailed immediately "Gracious, what a time I had getting for London, while the inventor stayed in the shop and worked day and night to get the machine nearer perfection. In Lon-she enjoyed singing into the machine so don the graphophone people listened to much that she wanted to come back every

"As we could not unfailingly rely on "We will pay Mr. Johnson what he likes our machinery to give the proper effects for the European rights of his invention." The partner thought it would be a good wrong. Then it was a case of 'If at first idea to cable Johnson of his success and he you don't succeed, try, try again.' Hundid so without delay. From that time to | dreds of times it seemed as if I could not stand another failure.

"I would talk over my failure with my partner and he would encourage me. Never was a sharp word exchanged between us. Nothing but sympathy was ever bartered through all that time of disappointment and struggle."

In Mr. Johnson's opinion nothing has boomed the invention more than the

He Was a Penniless Machinist Fourteen Years Ago-Some of His Previous Inventions That Failed

eyed it and then concluded that it was not serviceable. When the artist called for a decision the manager told him that the picture was not available. He noticed the young man's disappointment sympathetically and remarked:

Carrying power of the instruments differs.

When the orchestra is ready for work the singer takes his position at a horn, singing directly into it. He stands so close that the voice sounds very faint to those who are seated at the back of the pathetically and remarked:

"Around the corner there is a little firm who might like to see it. They may feel it will do something for them."

The "little firm" happened to be the condon ally of the Victor concern and they did think the dog would help. They were quite right. As few trademarks have done it caught the popular fancy and has held it.

The way the Victor plant has grown in Camden filustrates graphically the prompt triumph of the machine. Up to a short time ago when most of the old buildings were torn down it was a rambling, overgrown looking place. The company had It demands absolute perfection, and bought all the land and buildings for the best singers occasionally fail, some Victor factory shot up amid small buildings bearing strange names. About three years ago the old cabinet

building became too small. Then the firm planned a new shop covering a good to put up a one story addition in the rear. The one story addition was not finished before it was seen that it would have to be run up the entire four stories. But even as this was being done orders kept four but six stories high.

Everything is made by the company in its own shops. In the machine shop queer little engines that are considerably more than human in their accuracy and swiftness turn out bushels and bushels of screws, enough for all the carpenter work in the world it might seem. There is a cabinet factory where the combination of machinery and skilled hand work puts together and smooths and carves innumerable rows of cabinets. There are the testing rooms, where every record and every part of machinery has to be tested before being sent out. There is the room where the shellac mixture is made for the disks. The company is the largest buyer of shellao in the world. There are offices by the score where the counting is done, and then in the centre of all is the recording laboratory. At the end of this room there is a cabinet

which looks not unlike the boxes out of which mediums evoke spirits and through the black draped little window horns stick out, not at all suggestive of what is in process. No feature of the laboratory is more interesting than the arrangement of the orchestra of sixteen in the factory who does not know that his pieces. This orchestra is composed of first lass musicians, who receive high salaries. they play if they sat around as orchestras usually do, but instead the musicians are perched on stools at vary-

that he did not regard it favorably, but ing heights. Some are near the ground he would show it at the directors' meeting. In a bored fashion the directors arrangement is followed because the

For a time when a record is being made all goes well. Then tap, tap goes the baton of the leader against his music rack and the music stops. None of the listeners has heard anything wrong and they wonder the cause of the interruption. The conductor explains that one of the violins has attacked a note too soon. The fault was so slight that scarcely any one would have noticed it, but this little mistake would be magnified many times in the record. Consequently a record must be much more perfect than any concert or operatic performance bought all the land and billiouit for the several blocks, but it was difficult for the frequently. Fortunately errors are not expensive if caught at once. If the record has been passed before the mistake is found it becomes an expensive matter. So no chances are taken by the orchestra leader.

The music is recorded on a 'disk that deal of ground and three stories high. catches every tiny sound vibration. This was regarded as large enough, but This disk is made of some soft substance, before the three stories were up it was decided to build four. No sooner were The record made the disk is carried to the the four completed than it seemed wise electrotyping department and has various things done to it. A matrix is made from it and from this again another is made.

The original matrix is much too precious to be used for printing disks. It is stored away in a fireproof vault. Mr. Johnson's pouring in to such an extent that the man- dream that a great voice need never die agement found it wisest to make both the is realized. There are over 20,000 such original building and the addition not records in the vaults of the factory good for centuries to come

A feature of the talking machine which has always excited curiosity is the part which gives out the sound, the melody. It is a small disk of mica about two inches in diameter. The world has been searched for mica of a sufficiently high grade to be used for this purpose. If there is roughness, brittleness or any defect in the mica it may go to pieces. Every vibration marked by the voice on the disk is conveyed to the mica and this in turn produces sound waves exactly like those that made the marks on the disk. These vibrations are so slight that they cannot

even be seen with a microscope.

The business done by the company is ormous, and has jumped year by year. In 1901 the sales were \$3,000,000, in 1903 they had doubled, in 1905 they had again doubled, in 1907 they were \$27,000,000. During the panic times they dropped 25 per cent., but by 1909 they were back again at \$27,000,000 and;this year it is predicted they will surpass that mark, as the fac-

tory is working full blast every day. In a peculiar way the whole business is Mr. Johnson's. There is not a mechanic chief understands the work on which he he is engaged better than he does himself. They would look natural enough when This is not remarkable when it is recalled that every part of the talking machine was created and originally made by Mr. Johnson with his own hands.



ONLY DOWN AND OUTERS MADE RECORDS IN OLD DAYS.

GAMBLING MADE POSSIBLE BY POLICE PROTECTION, ACCORDING TO EVIDENCE FROM MANY SOURCES same reasons that the East Side game | A part of this money was put up as afternoon newspaper and there unfolded ating in the big betting ring were sepa- | "Since the tracks closed there's been that the real gamblers who mind their

Continued from First Page.

THAT CHEERFUL CLIMB TO FAME.

of Rosenthal's house and he moved out in terror. But a few days later he moved nto the same building occupied by Then there was war. Somebody complained to Headquar-

ters and Rosenthal was raided. He tection anyway. Their appearance moved all his stuff back the next day and both places were allowed to run un-locations. Influential bluecoats discovered that they because, he is said a veteran wheel spinner to the writer open to-day are run to draw business for from telling tales, it's time to get out of

big gamblers. They said they'd get pro- out to drum up trade.

More and flosential was raised. He was the first of the strong the strong of the stron

same reasons that the East Side game failed. So the crowd set up the battle cry:

"To Forty-second street and Broadway!"

That was the first move that finally resulted in the killing of Rosenthal. The sulted in the killing of Rosenthal. The gamblers defied the police and the cheap gamblers defied the police and the like gamblers. They said they'd get pro-

but to drum up trade.

Two days later word came for the place to close up. The inspector was of it.

Siders went over the line they killed the place stocks are gone. It's gambling business. Some of the big fellows closed up.

The inspector was of it.

Siders went over the line they killed the place to days later word came for the place to close up.

The inspector was of it.

Siders went over the line they killed the place to be seen at the tracks are gone. It's gambling business. Some of the big fellows closed up.

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